Letters to the Editor

In Defense of Euell Gibbons

I protest the publication of judgmental remarks such as those of Robert E. Holtz [ABT 41(6):368] about Euell Gibbons. They do not belong in The American Biology Teacher.

Euell Gibbons was a deeply philosophical Quaker who thought carefully about the consequences of what he did. Gibbons’s approach did indeed stress stewardship. This approach was a fundamental part of what he wrote and what he taught in the field.

I am certain that Holtz did not know Euell Gibbons. His letter does not suggest that he has read Gibbons. I would urge that he avoid the kind of breach of scholarly evident in his letter. Holtz may wish to read Stalking the Wild Asparagus to gain some insight into what Gibbons really thought.

I can accept carefully drawn inferences as they are often published in The American Biology Teacher, but I do not accept judgments such as Holtz’s when they defame the memory of a person of Gibbons’s stature.

Russell F. Hansen
Western Reserve Academy
Hudson, Ohio 44236

Editor’s Note—Robert E. Holtz has chosen not to comment on Hansen’s letter.

Drosophila and Evolution

In regard to Dorothy B. Rosenthal’s article, Using Species of Drosophila to Teach Evolution, in ABT 41(9):552 from what I could gather, the laboratory exercise does not teach or present any concrete evidence for evolution. The fact that variations exist is not, in itself, evidence for evolution unless natural selection in relation to variations is proved. The fact that variations exist may be incorporated into nonevolutionary hypotheses.

Some students apparently attempted to demonstrate competition among two or more species of Drosophila, but did not attempt to demonstrate selection based upon the variations that they observed among individual members of the species. In fact, it is not possible to demonstrate natural selection under laboratory (artificial) conditions. It is not possible to duplicate all of the known and unknown factors in the environment in a laboratory. Any so-called laboratory demonstrations of natural selection are really demonstrations of artificial selection, which is associated with human intelligence. Artificiality is the antithesis of naturalness.

The laboratory exercise seems to consist of evolution by implication, but it is not educationally sound nor scientifically valid.

Randall R. Hedtke
Technical High School
St. Cloud, Minnesota 56301

Rosenthal Responds

Despite what Mr. Hedtke says, the origin of new species from a single species through isolation and changes in gene frequency is believed by modern biologists to be a key factor in the evolutionary process. I refer Mr. Hedtke to any standard text on the subject, or for example, to this paragraph from Biology by Clyde Herreid, p. 39 (Macmillan Publishing Company, Inc., 1977):

The genetic makeup of a population can vary through time; this is the process of evolution. . . . Since individuals vary in their structural and functional characteristics (phenotype), their probabilities of survival in the environ-